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EXAMINER

MANNING, JOHN

ART UNIT PAPER NUMBER

2614

DATE MAILED: 07/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/688,338

Applicant(s)

SHINTANI, PETER RAE

Examiner

John Manning

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 7-10, 17-18 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Ikeguchi (US Pat App Pub No 2004/0036811).

In regard to claims 1, 17 and 18, Ikeguchi discloses a system and method of searching channels in a broadcast receiver. The claimed steps of "selecting a first input of a plurality of inputs" and "selecting a first single modulation scheme of a plurality modulation schemes on the first input" are met by Figure 3, Item S202. The digital tuner is the selected input and the selected modulation scheme is digital. In this example, the modulation scheme is selected by the microprocessor 300. The claimed step of "tuning a plurality of channels for the identified single modulation scheme" is met Figure 3, Item S203. The claimed step of "determining if a broadcast is received on each of the channels" is met Figure 3, Item S204. The claimed step of "recording channels that are determined to receive broadcasts in a channel map according to the plurality of tuned channels for the identified single modulation scheme" is met Figure 3, Item S205. The claimed step of "not performing a full auto-program" is met Figure 3, Item S211. Only

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the digital channels are searched; therefore, a full auto program has not been performed. "When only a digital search for digital broadcasting is made in order to newly add digital broadcasting, a search time period can be similarly shortened by referring to a channel map which is already completed, to attempt to search for only channels other than a channel on which analog broadcasting is being performed. When either of the types of broadcasting is being viewed, a channel search is made using a tuner for the other type of broadcasting, thereby making it possible to also update the channel map. Specifically, while digital broadcasting is being received, an analog search is made, to update data related to an analog channel. When a channel on which it is judged that there is no analog broadcasting, as judged in the step S107 shown in FIG. 2, has already been stored as one on which digital broadcasting is performed on the channel map, data related to the channel is not updated. On the other hand, while analog broadcasting is being viewed, a digital search is made, thereby making it possible to also update data related to a digital channel. The results of an analog search are given priority to, as judged in the steps S207 and S209 shown in FIG. 3, to neither make a digital search nor update data with respect to a channel which has been stored as one on which analog broadcasting is performed on the channel map" (Paragraph 0101-0103).

In regard to claim 2, the claimed step of "wherein the not performing the full auto-program includes terminating an auto-program after evaluating only the first modulation scheme without completing an auto-program for any other modulation scheme" is met by Figures 2 and 3. As can be seen by Figures 2 and 3, no further search is

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designated. One search may be performed after the other is finished; however, this is not required and is not necessary for merely updating the channel map.

In regard to claim 3, the claimed step of "determining if the channel map includes an assignment for a first tuned channel", "identifying a channel name associated with the first tuned channel" and "replacing the assignment with the first tuned channel and recording the channel and the channel name in the channel map" are met by Figure 2, Items S204-S207. "When it is judged in the foregoing step S204 that there is broadcasting (synchronization can be ensured and a broadcasting station can be recognized), receivable channel information indicating that the current channel is one on which digital broadcasting is performed, which broadcasting station is performing broadcasting, and what modulation system is used, for example, is stored in the channel map inside the memory 303 (step S205). The procedure then proceeds to the step S206. When it is judged in the foregoing step S204 that there is no broadcasting (no synchronization can be ensured or no broadcasting station can be recognized), it is judged whether or not receivable channel information indicating that a channel currently tuned in to is a channel on which analog broadcasting is receivable is stored in the channel map inside the memory 303 (step S207)" (Paragraphs 0064-0065).

In regard to claim 7, the claimed step of "identifying channels not assigned in the channel map associated with the modulation scheme" is met by Figure 3, Item S209. "When the receivable channel information indicating that a channel which the digital tuner 101 is newly instructed to tune in to is a channel on which analog broadcasting is receivable is stored in the channel map, it is found that the channel has already been

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recognized as a channel on which analog broadcasting is receivable. Therefore, the microcomputer 300 does not search for the channel but gives to the digital tuner 101 an instruction to tune in to a channel on the high frequency side adjacent to the channel currently tuned in to (step S209)" (Paragraph 0069). The system identifies and scans channels not assigned to the analog map, which are the digital channels. The claimed step of "scanning a signal of the single modulation scheme for a first channel of the identified channels not assigned in the channel map" is met Figure 3, Item S203. The claimed step of "determining if a first broadcast is received over the first channel" is met Figure 3, Item S204. The claimed step of "initiating the tuning and the recording for the single modulation scheme when the first broadcast is received over the first channel" is met Figure 3, Item S205.

Claim 8 is met by that discussed above for claims 1 and 7.

In regard to claim 9, the claimed step of "tuning in the signal" is met by Figure 3, Item S202. The claimed step of "tuning in each of a plurality of channels carried by the signal" is met by Figure 3, Item S209. The claimed step of "recording into the channel map each of a plurality of channels that deliver broadcast information" is met by Figure 3, Item S209. The claimed step of limiting the channel map to the signal and not performing a full auto-program" is met Figure 3, Item S211. Only the digital channels are searched; therefore, a full auto program has not been performed.

In regard to claim 10, the claimed step of "wherein the limiting further comprises limiting the channel map to the signal and not generating channel map for other signals of the plurality of signals." is met by Figures 2 and 3. As can be seen by Figures 2 and

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3, no further search is designated. One search may be performed after the other is finished; however, this is not required and is not necessary for merely updating the channel map.

In regard to claim 20, the claimed video processor coupled to the tuner is met by microcomputer 300 of Figure 1. The claimed memory coupled to the processor is met by memory 303 of Figure 1.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4-6, 11-16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeguchi.

In regard to claims 4-6, Ikeguchi discloses the claimed steps of "scanning a signal modulated by the first modulation scheme" and "identifying channels carrying broadcast information" as shown in Figures 2 and 3. "When only a digital search for digital broadcasting is made in order to newly add digital broadcasting, a search time period can be similarly shortened by referring to a channel map which is already completed, to attempt to search for only channels other than a channel on which analog broadcasting is being performed. When either of the types of broadcasting is being viewed, a channel search is made using a tuner for the other type of broadcasting,

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thereby making it possible to also update the channel map. Specifically, while digital broadcasting is being received, an analog search is made, to update data related to an analog channel. When a channel on which it is judged that there is no analog broadcasting, as judged in the step S107 shown in FIG. 2, has already been stored as one on which digital broadcasting is performed on the channel map, data related to the channel is not updated. On the other hand, while analog broadcasting is being viewed, a digital search is made, thereby making it possible to also update data related to a digital channel. The results of an analog search are given priority to, as judged in the steps S207 and S209 shown in FIG. 3, to neither make a digital search nor update data with respect to a channel which has been stored as one on which analog broadcasting is performed on the channel map" (Paragraph 0101-0103). "When it is judged in the foregoing step S204 that there is broadcasting (synchronization can be ensured and a broadcasting station can be recognized), receivable channel information indicating that the current channel is one on which digital broadcasting is performed, which broadcasting station is performing broadcasting, and what modulation system is used, for example, is stored in the channel map inside the memory 303 (step S205). The procedure then proceeds to the step S206. When it is judged in the foregoing step S204 that there is no broadcasting (no synchronization can be ensured or no broadcasting station can be recognized), it is judged whether or not receivable channel information indicating that a channel currently tuned in to is a channel on which analog broadcasting is receivable is stored in the channel map inside the memory 303 (step S207)" (Paragraphs 0064-0065). Although updating the map is disclosed, the reference is

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silent with respect to comparing the scanned channel with the mapped channels and initiating the tuning, the determining and recording when a difference is detected. Official notice is taken that it is notoriously well known in the art to compare current channel information to mapped information when updating so as to prevent unnecessarily deleting and rewriting the entry. Consequently, it would have been obvious to one of ordinary skill in the art to modify Ikeguchi with comparing the scanned channel with the mapped channels and initiating the tuning, the determining and recording when a difference is detected for the stated advantage.

In regard to claim 11, Ikeguchi discloses mapping channel information. The reference fail to explicitly disclose determining if a signal quality meets a predefined threshold prior to recording the information. Official Notice it take that it is notoriously well known in the art to determine if a signal quality meets a predetermined threshold so as to prevent the user from receiving an unusable channel. Consequently, it would have been obvious to one of ordinary skill in the art to implement Ikeguchi with determining if a signal quality meets a predefined threshold prior to recording the information for the stated advantage.

In regard to claim 12, Ikeguchi discloses that the modulation scheme is selected by the microprocessor 300 from the plurality of inputs/tuners.

In regard to claim 13, the claimed step of "determining if a channel map exists for the selected modulation scheme" is met by Figure 3, Items S210. It is determined if any analog channels exist. "When the receivable channel information indicating that a channel which the digital tuner 101 is newly instructed to tune in to is a channel on

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which analog broadcasting is receivable is stored in the channel map, it is found that the channel has already been recognized as a channel on which analog broadcasting is receivable. Therefore, the microcomputer 300 does not search for the channel but gives to the digital tuner 101 an instruction to tune in to a channel on the high frequency side adjacent to the channel currently tuned in to (step S209)" (Paragraph 0069). The reference discloses that the channel map is generated for the entire channel (Figure 3, Items S202 and S211). The system identifies and scans channels not assigned to the analog map, which are the digital channels. Although updating the map is disclosed, the reference is silent with respect to comparing the scanned channel with the mapped channels and initiating the tuning, the determining and recording when a difference is detected. Official notice is taken that it is notoriously well known in the art to compare current channel information to mapped information when updating so as to prevent unnecessarily deleting and rewriting the entry. Consequently, it would have been obvious to one of ordinary skill in the art to modify Ikeguchi with comparing the scanned channel with the mapped channels and initiating the tuning, the determining and recording when a difference is detected for the stated advantage.

Claims 14-16 are met by that discussed for claims 4-6. Except, the reference fail to explicitly disclose determining if a signal quality meets a predefined threshold prior to recording the information. Official Notice it take that it is notoriously well known in the art to determine if a signal quality meets a predetermined threshold so as to prevent the user from receiving an unusable channel. Consequently, it would have been obvious to one of ordinary skill in the art to implement Ikeguchi with determining if a signal quality

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meets a predefined threshold prior to recording the information for the stated advantage.

In regard to claim 19, Ikeguchi discloses the receiving and mapping of digital and analog signal. The reference is silent with respect to the analog signal being NTSC and the digital signal being QAM. Official notice is taken that it is notoriously well known in the art to use QAM for digital signal and NTSC for analog signals for standardization of receiving equipment. Consequently, it would have been obvious to one of ordinary skill in the art to implement the reference with QAM and NTSC tuners for the stated advantage.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Manning whose telephone number is 571-272-7352. The examiner can normally be reached on M-F: 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JM
July 8, 2005



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